METROPOLITAN
TRANSPORTATION
COMMISSION

Joseph P. Bort MetroCenter
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BAY BRIDGE DESIGN TASK FORCE ENGINEERING AND DESIGN ADVISORY PANEL

Thursday, December 7, 2000
1 p.m.
Joseph P. Bort MetroCenter Auditorium
101 Eighth Street
Oakland, California 94607

Chairperson: Joseph Nicoletti
Vice Chair: John Kriken
Staff Liaison: Steve Heminger

FINAL AGENDA

1. Welcome and introductions -- Joseph Nicoletti, Chair, and John Kriken, Vice Chair
2. Status report on east span design effort and environmental review process -- Brian Maroney, Caltrans
3. Response to Army Corps of Engineers report recommendations -- Denis Mulligan, Caltrans
4. Report from Ground Motion Subcommittee -- Bruce Bolt and Roger Borcherdt
5. Next steps -- Denis Mulligan, Caltrans
6. Other business/public comment

Supporting materials will be distributed at the meeting.

Public Comment: The public is encouraged to comment on agenda items at committee meetings by completing a request-to-speak card (available from staff) and passing it to the committee secretary or chairperson. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.
Record of Meeting: MTC meetings are tape recorded. Copies of recordings are available at nominal charge, or recordings may be listened to at MTC offices by appointment.
Sign Language Interpreter or Reader: If requested three (3) working days in advance, sign language interpreter or reader will be provided; for information on getting written materials in alternate formats call 510.464.7787.
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Memorandum

TO: Bay Bridge Design Task Force
Engineering and Design Advisory Panel

DATE: September 24, 1999

FR: Steve Heminger, MTC

RE: Navy approves Caltrans' drilling permit

Caltrans received written approval yesterday from the U.S. Navy to conduct geotechnical drilling on Yerba Buena Island for the new east span design on the northern alignment. The permit is effective October 1, 1999 and expires on February 29, 2000.

Caltrans is now attempting to mobilize the drilling crew and equipment as soon as possible. It will then take a few months to conduct the drilling and analyze the results, before those results can be incorporated into the ongoing design of the new east span.

I will keep you posted of material developments as they occur. If you need any further information, please call me at (510) 464-7810 or Denis Mulligan at Caltrans at (510) 286-6293.

cc: Denis Mulligan, Caltrans

S H

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
P O BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

Heminger, T. McMillan, R. McMillan, A. Flemer

RECEIVED
JAN 3 2001
MTC

December 27, 2000

Colonel Michael J. Walsh
District Engineer
U.S. Army Corps of Engineers,
1325 J Street
Sacramento, CA 95814-2922

Dear Colonel Walsh:

I want to once again thank you and your team for your efforts in helping the California Department of Transportation achieve seismic safety for the people of the Bay Area through the studies to evaluate replacing vs. retrofitting the San Francisco-Oakland Bay Bridge East Span. This important seismic safety project would not be moving forward without the assistance and contributions of the U.S. Army Corps of Engineers. We are looking forward to breaking ground on the first contract for the New East Span next year because of your efforts.

As you may be aware the design of the New East Span was conducted through a very public process. The Metropolitan Transportation Commission (MTC) which is the local Federal Metropolitan Planning Organization for the Bay Area was designated the task of recommending a new alignment and design for the New East Span. MTC in turn created a task force to lead this effort. The Bay Bridge Design Task Force (Design Task Force), a subset of the full commission, was thus formed. To provide technical expertise and guidance to the Design Task Force, a technical advisory panel was formed. This panel is known as the Engineering and Design Advisory Panel (EDAP). EDAP has over two dozen members with a wide range of world class engineering, design, and architectural experience. Members are from the public and private sectors as well as academia.

EDAP appointed an Ad Hoc Committee on Seismic Ground Motions (AHC). The AHC is comprised of four members. The Chairperson is Professor Bruce Bolt, a professor emeritus from U.C. Berkeley in seismology. The other members are Dr. Norman Abrahamson, a world renowned geoscientist with expertise in developing seismic ground motions, Dr. Roger Borcherdt, a seismologist from the U.S. Geological Survey with an interest in recording ground motions from earthquakes, and Dr. Joseph Penzien, a professor emeritus from U.C. Berkeley who is recognized as a world leader in structural dynamics and probability/statistics.

The AHC reviewed the U.S. Army Corps of Engineers (COE) Final Report dated October 27, 2000, specifically in reference to Conclusion #7 in the Executive Summary on page 4 – "The performance of the replacement bridge during a Maximum Credible Earthquake (MCE) cannot be determined. The bridge has not been evaluated or designed for a MCE event, which is larger than the SEE event" and Recommendation #3 on page 23 – "The bridge should be evaluated for a design that addresses the San Andreas MCE ground motions. These ground motions appear to

be more forceful than the SEE ground motions in the period range significant to the bridge." The AHC has summarized their findings in the attached report dated December 7, 2000.

The AHC concludes that the graph on page 21 of the COE Final Report entitled "Response Spectra" (on which the MCE vs. SEE ground motion discussion hinges) is plotted incorrectly by scaling from Figure 2-5 of the report "Seismic Ground Motion Report for San Francisco-Oakland Bay Bridge, East Span Seismic Safety Project" prepared by Fugro-EarthMechanics, 1998 (Document #335 in the data catalog as used in the Final Report). When plotted correctly, as shown in Figure R2 of the attached report, the MCE spectral accelerations fall well below the SEE curve at all relevant periods.

The AHC further concludes "...that the ground motions defined by the SEE response spectra adopted for the replacement bridge design and shown in figures R1, R2, and R3 (of the attached report) exceed the San Andreas MCE ground motions defined by standard practice at all periods of engineering relevance. Contrary to the statement in Conclusion No. 7 (page 4) of the COE Final Report, the replacement bridge has been designed and evaluated for ground motions that are larger than those from the recognized standard MCE approach." This reaffirms that the New East Span is being appropriately designed for seismic safety.

I have attached a copy of the report prepared by the AHC. Please contact me at (510) 286-6293 if you have any questions or wish to discuss this further.

Sincerely,

Denis Mulligan

DENIS J. MULLIGAN
Program Manager
Toll Bridge Program

Attachment

cc: Glenn Clinton – FHWA
Annemarie Conroy - CCSF

bcc: JMorales, THarris, BFelker, JRoberts, JAllison, DTrujillo, HYYahata, PHensley, DMulligan, TAnziano, BMaroney, SHulsebus, AAkinsanya, RFalsetti, MMelandry, Files

DATE: 7 December 2000

Joseph Nicoletti
Chairman
Engineering and Design Advisory Panel, MTC

FROM: Report of the Ad Hoc Committee on Seismic Ground Motions
Members: Bruce A. Bolt, Chairman
Norman Abrahamson
Roger Borcherdt
Joseph Penzien

RE: **Final Report**
Evaluation Assessment of Proposed Alternatives to Retrofit/Replace the East Span of the San Francisco-Oakland Bay Bridge
U.S. Army Corps of Engineers, October 27, 2000

Dear Mr. Nicoletti:

1. CHARGE AND DEFINITIONS

As Chairman of the EDAP, you requested that the Ad Hoc Committee (AHC) review and comment on the discussion and recommendations on seismic ground motions contained in the **Final Report** of the U.S. Army Corps of Engineers. Members of the AHC have read thoroughly the **Final Report**; the Committee met on Thursday, 2 November 2000, at the offices of International Civil Engineering Consultants, Inc. (ICEC) to discuss aspects that relate to earthquake ground motion and members have consulted since that time.

In the "Executive Summary" of that **Final Report** on page 4, there is the conclusion that "The performance of the replacement bridge during a Maximum Credible Earthquake (MCE) cannot be determined. The bridge has not been evaluated or designed for a MCE event, which is larger than the SEE event." On page 23 of the **Final Report**

there is the summary recommendation that "the bridge should be evaluated for a design that addresses the San Andreas MCE ground motions. These ground motions appear to be more forceful than the SEE ground motions in the period range significant to the bridge." In the sections below, the AHC addresses the argument behind the above recommendation and clarifies the concerns expressed in it.

Initially, it is appropriate to define the concepts of Maximum Credible Earthquake (MCE) and Safety Evaluation Earthquake (SEE). Both of these concepts are referred to throughout the COE **Final Report.** In this respect it is appropriate to refer back to the Report to the Director of the Department of Transportation by its Seismic Advisory Board (George W. Housner, Chairman), October 1994, entitled, *The Continuing Challenge*. This report was written as a result of the Northridge earthquake of January 17, 1994. On page 6 on Table 1.1 the concept of "**Safety Evaluation Ground Motion**" for important bridges is defined: "Up to two methods of defining ground motion may be used

- Deterministically assessed ground motions from the maximum earthquake as defined as by the Division of Mines and Geology, Open File Report 92-1 (1992).
- Probabilistically assessed ground motions with a long-return period (approximately 1000-2000 years)."

Table 1.1 goes on to state that "for important bridges both methods shall be given consideration... For all other bridges, the motions shall only be based on the deterministic evaluation." Because of the importance of the East Bay Crossing, both methods were considered in estimating the appropriate ground motions for dynamic analysis and design of the replacement bridge. In essentials, the above two evaluation

methods represent, respectively, the MCE and SEE earthquake characterization referred to in the COE **Final Report.**

Considerable discussion of these definitions is given in a seminal report by Geomatrix Consultants, Inc. entitled, "Seismic Ground Motion Study for West Bay San Francisco Bay Bridge," contract no. 59N772, March 1992. This report is referred to below as GEO92. A second key report is "Seismic Ground Motion Report for San Francisco-Oakland Bay Bridge, East Span Seismic Safety Project," prepared by Fugro/Earth Mechanics, 1998. This report is referred to below as FU98.

We wish to emphasize that in recent years there has been a strong trend toward the second method of assessment mentioned above for large-critical structures (see Yeats, Sieh, and Allen, "The Geology of Earthquakes", Oxford, 1997, pg. 45). Two crucial reasons are first, the difficulty in setting any objective non-statistical basis for the selection of a so-called Maximum Credible Earthquake, and second, by deaggregation of each hazard component, the alternative estimation method (i.e. using the SEE concept) allows explicitly consideration of the specific sources and site. Implicitly, special attention may be given to the type of structure to which the hazard study applies; the known range of significant periods of structural vibrations can guide the effort expended on the estimation of realistic and relevant ground motion characteristics, such as the source directivity effect (see below).

The time-line used in the discussion in the COE **Final Report** (e.g. pages 20-21) may indicate lack of awareness of a revision of the ground motions that followed a 1998 review by the AHC. This revision was important because it included development and

application of the effect of source directivity on ground motion. This incorporation in the project went well beyond standard practice.

2. RECOMMENDATIONS AND ARGUMENTS IN THE COE FINAL REPORT

The key discussion on ground motions is on pages 20-21 of the COE **Final Report**. It hinges on a figure entitled "Response Spectra." This figure is reproduced in this report as Figure R1. First, we note that the ground motions discussed are for the rock basement and not for the soil above, which interacts with the bridge foundations. Secondly, a small drafting correction is needed to the dashed line in Figure R1 entitled "SA 84th MCE". Points for periods 0.7 to 1.7 sec have been plotted incorrectly in the COE **Final Report** by scaling from Figure 2-5 of FU98. The correct spectrum has been recalculated for this AHC review from the original numerical values and is shown by the heavy dashed curve in Figure R2 where it can be compared with the SEE curve (heavy full line). This comparison shows that at periods of less than 1 sec (i.e., corresponding to the higher-frequency bridge responses), the SEE spectral accelerations are stronger than those of the corrected MCE spectrum. For periods between 1 and 2.5 sec the curves are virtually identical, within the uncertainties. At longer periods, the corrected "SA 84th MCE (augmented)" spectrum lies slightly above the SEE curve (in agreement with the statement on page 21 of the COE **Final Report**).

It is critical to know, however, that the curve labeled "SA 84th MCE" in Figure R1 (and "SA 84th MCE (augmented)" in Figure R2) is not, in fact, a standard MCE curve (with some average directivity effects included), used regularly in practice to establish seismic hazard for critical structures. As explained in the commentary in FU98 (page 2.5), the referenced curve drawn in Figures R1 and R2 is the standard MCE curve

"augmented by forward directivity effects", assuming the most unfavorable rupture direction. Realistic seismological source modelling requires instead the incorporation of the directivity direction towards and away from the bridge in a probabilistic way. Strong motion recordings have shown that this latter correction is significant at periods greater than about 1 sec for sites within about 15 km of the causative fault rupture. The consequences of directivity have been widely discussed in recent hazard assessments and it was deliberately included in the final East Bay Crossing ground motion estimation of the SEE response spectrum and, even more critically, in the selected time histories (the effect of the directivity pulse and "fling").

The above clarification has important consequences. In the COE **Final Report**, page 21, the statement is made "for this replacement bridge with its inherent period, the MCE is a greater force than the SEE." On the contrary it follows from the correct selection of the MCE curve that this statement needs revision in two crucial ways. First, when the standard 84th percentile MCE curve is plotted against the SEE curve, as shown in Figure R2, it is clear that the MCE spectral accelerations fall well below the SEE curve at **all** relevant periods. The augmented MCE spectrum shown in Figures R1 and R2 was considered in FU98 only because the hazard analysis went beyond standard practice.

Secondly, in a full analysis application of the seismic hazard, it is not sufficient to consider "an inherent period" for the replacement bridge, but rather all crucial response periods of the bridge. In this regard, the longer periods of significance are critical response periods of the tower (approximately 2.3 sec), and fundamental periods of the highest piers of the viaduct (maximum values up to 2.7 sec). As will be seen in Figure R2, in this period range the SEE spectral acceleration values (with directivity effects)

exceed those of the standard 84th percentile MCE. In addition, the corrected comparison in Figure R3 (revision of plot in COE **Final Report** Appendix 6) between displacement spectra for the standard San Andreas 84th percentile MCE and the adopted 1500-year SEE yields a similar result.

3. CONCLUDING REMARKS

In summary, the AHC concludes that the ground motions defined by the SEE response spectra adopted for the replacement bridge design and shown in Figures R1, R2 and R3 exceed the San Andreas MCE ground motions defined by standard practice at all periods of engineering relevance. Contrary to the statement in Conclusion No. 7 (page 4) of the COE **Final Report**, the replacement bridge has been designed and evaluated for ground motions that are larger than those from the recognized standard MCE approach. There also appears to be no reason to re-discuss the probabilistic basis for the SEE, the argument for which has been fully documented in FU98 and elsewhere.

Finally, we draw attention to a recent development in seismic hazard computations. As you know, response spectra (estimated for earthquakes of various magnitudes and for various source-to-site distances) depend crucially on the measurement of ground motions in actual earthquakes. As additional recordings become available from newly occurring large earthquakes, these new ground motion recordings are incorporated into the existing database; revised attenuation curves are then calculated. In the assessment of the MCE and SEE discussed in the reports GEO92 and FU98, a number of then current attenuation curves were used to allow inclusion of uncertainties. In 1999 two large earthquakes produced additional strong-motion recordings, namely, the Izmit, Turkey, earthquake of 17 August 1999 and the Chi-chi, Taiwan, earthquake of 20

September 1999, with magnitude 7.1 and 7.4, respectively. The observations from these earthquakes have now been included by N. Abrahamson in a preliminary set of revised attenuation curves shown in Figure R4. These updated curves, even allowing for their tentative nature, indicate a reduction in the ground motion attenuation relations (i.e. increased attenuation) compared with those used in the earlier studies for the San Francisco-Oakland bridge. It is at least very likely that any future re-evaluations of the adopted ground motions for the replacement East Bay Crossing that incorporate these up-to-date ground motion data, would lead to response spectra (for both the MCE and SEE methods) with somewhat lower spectral acceleration values than those adopted.

Bruce C. Bolt — B.A. Bolt, Chairman

Norman Abrahamson

Roger Borcherdt

Joseph Penzien

Response Spectra

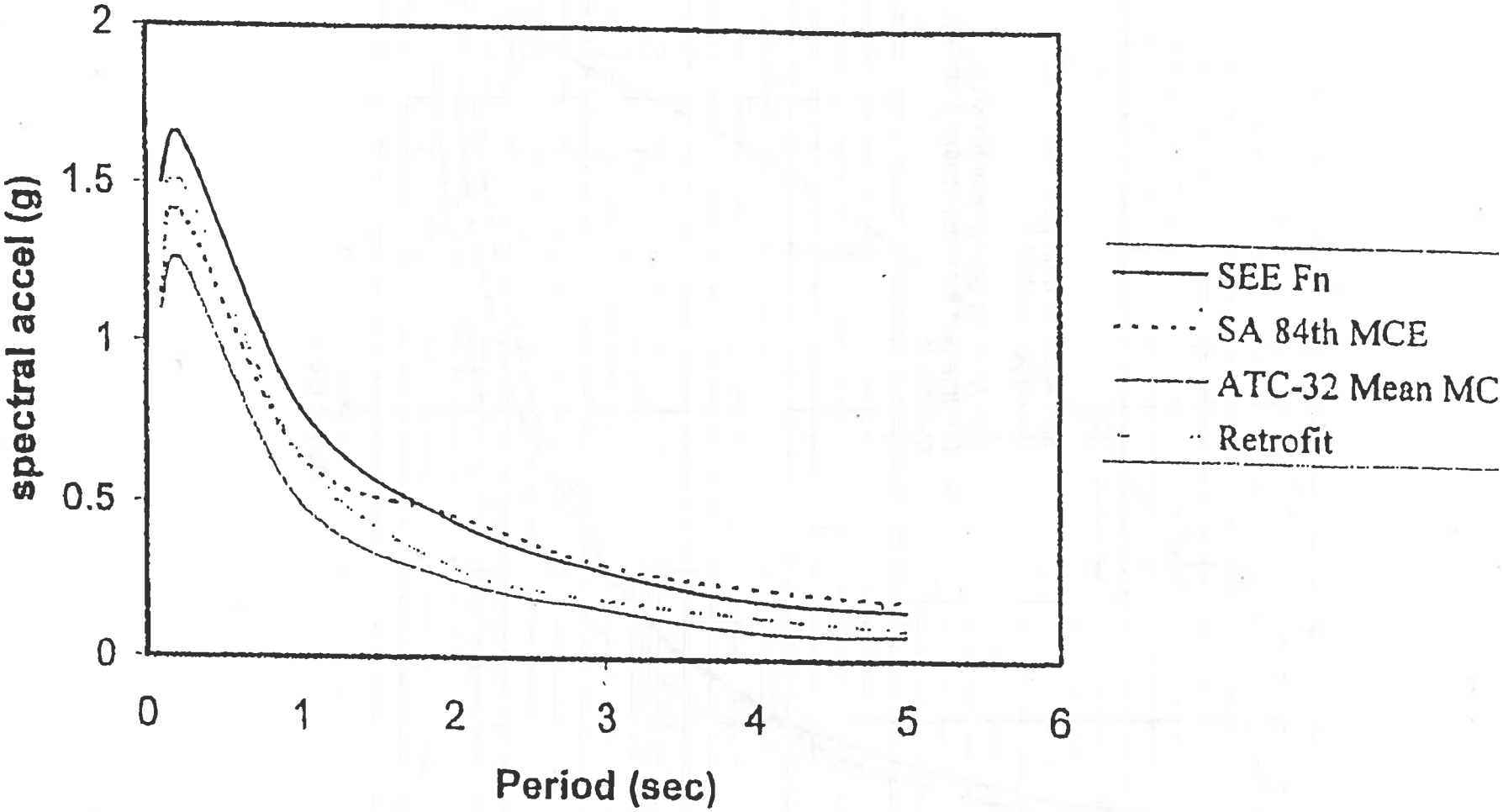

FIGURE R1

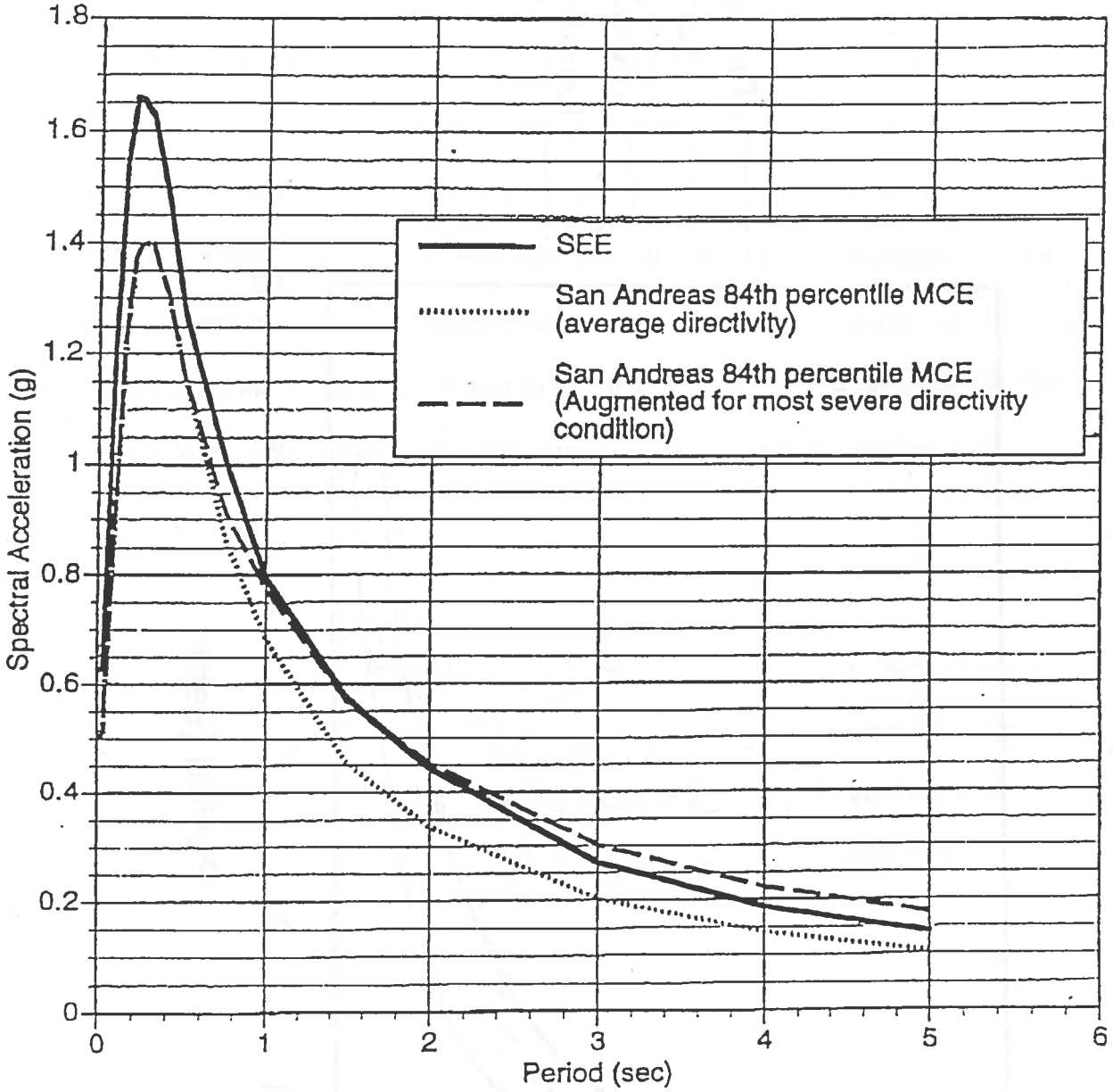
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Spectral Acceleration (g)
0
1
2
3
4
5
6
Period (sec)
SEE
San Andreas 84th percentile MCE (average directivity)
San Andreas 84th percentile MCE (Augmented for most severe directivity condition)

FIGURE R2

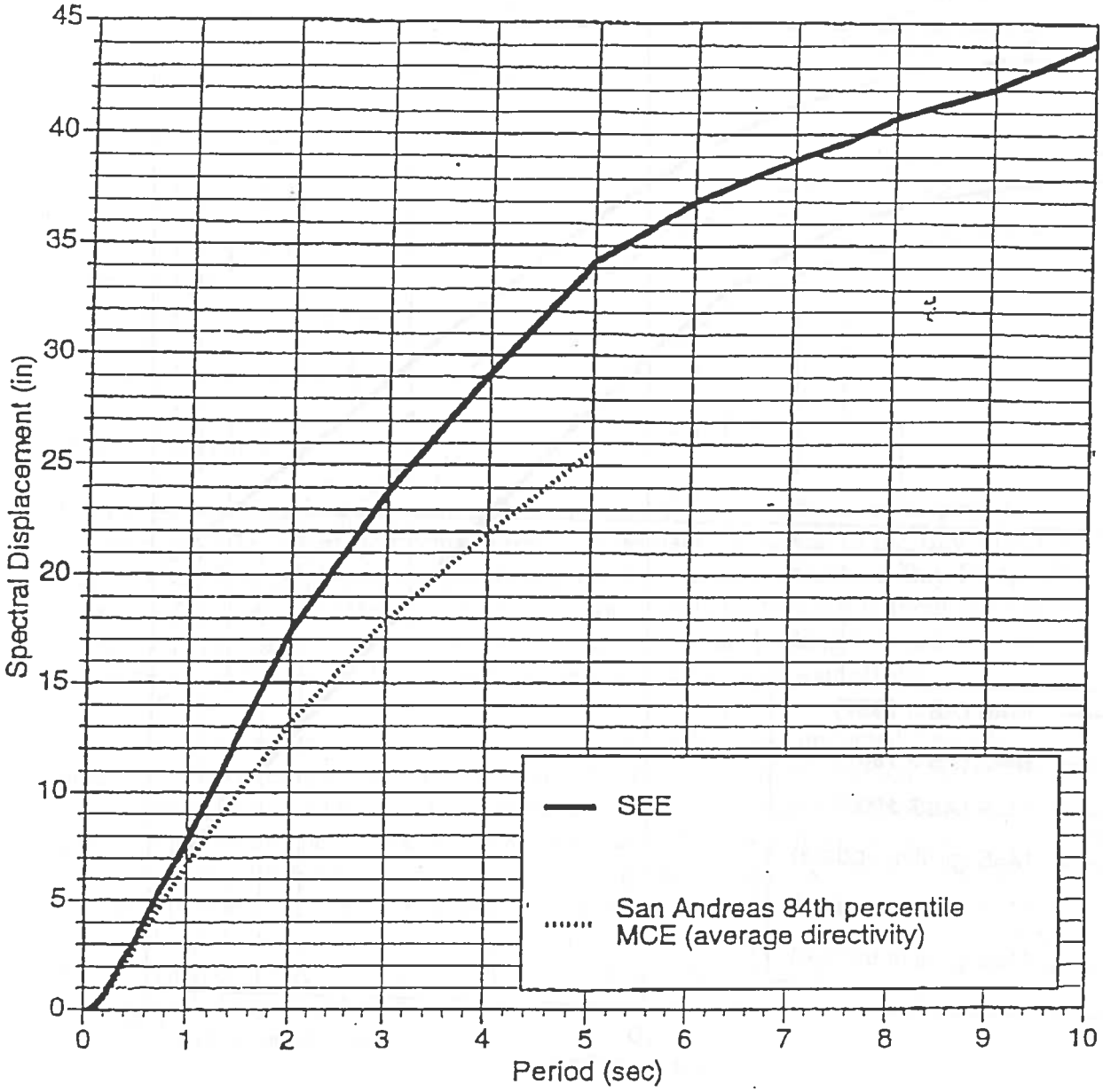
Spectral Displacement (in)
0
5
10
15
20
25
30
35
40
45
0
1
2
3
4
5
6
7
8
9
10
Period (sec)
SEE
San Andreas 84th percentile MCE (average directivity)

FIGURE R3

Median Peak Acceleration
Strike-slip, Rock site

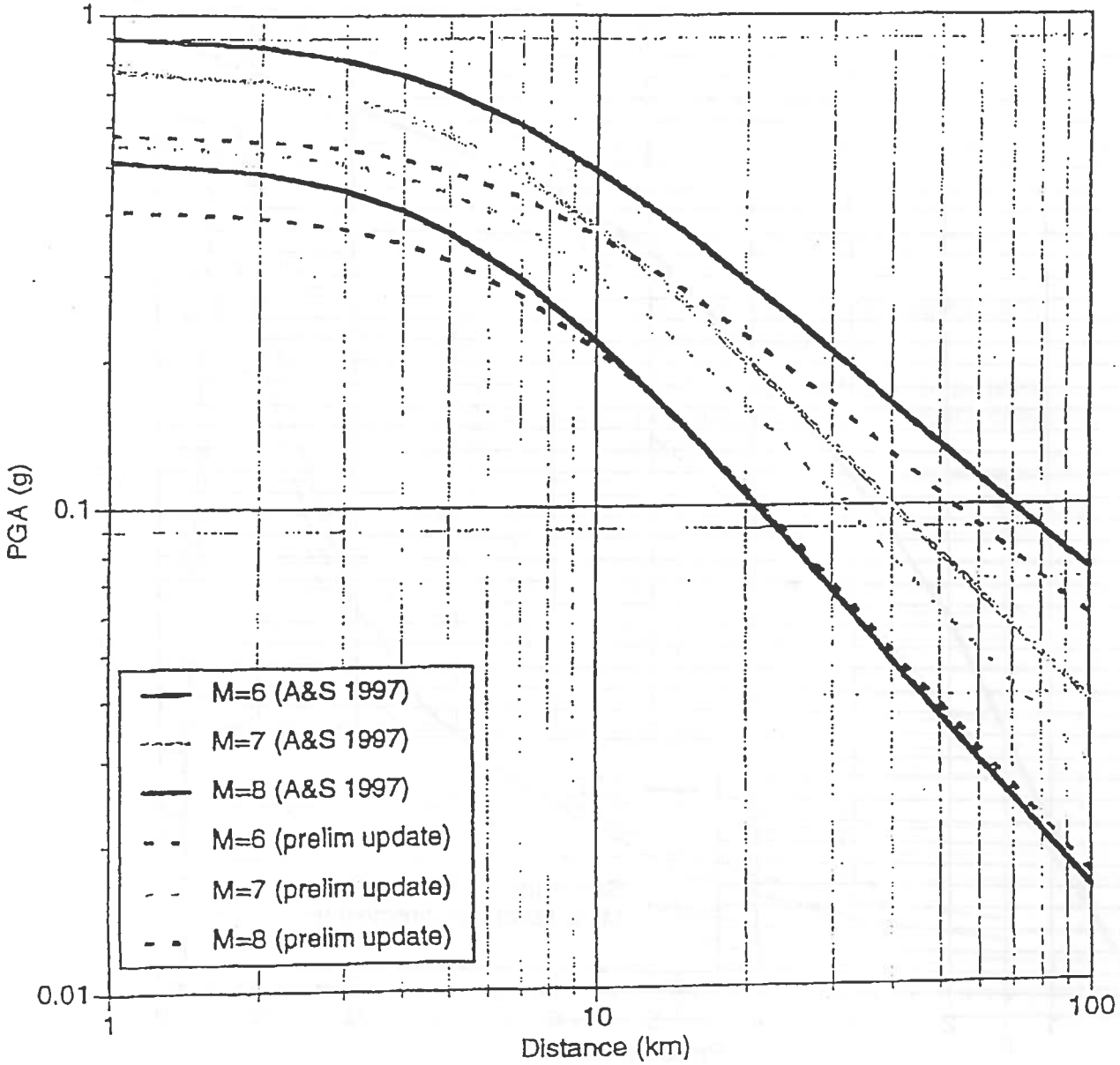

FIGURE R4

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Memorandum

TO: Bay Bridge Design Task Force
Engineering and Design Advisory Panel

DATE: September 21, 1999

FR: Steve Heminger, MTC

RE: October meeting cancellations

At a special meeting on September 8, the Bay Bridge Design Task Force decided to continue to defer consideration of additional changes to the new eastern span design pending resolution of the impasse with the U.S. Navy over the northern alignment recommended by EDAP and the Task Force.

Contrary to recent press reports, as of today Caltrans has not received written permission from the Navy to conduct geotechnical drilling on Yerba Buena Island. Moreover, even if such permission is granted in the next few days, Caltrans reports that it will take several months to mobilize the drilling equipment and crew, conduct the drilling, analyze the drilling samples, and incorporate the results into the ongoing bridge design work.

Accordingly, there is no need for the regularly scheduled meetings of EDAP and the Task Force on October 4 and 13, respectively, and those meetings are hereby canceled. The next quarterly meetings for the two bodies are scheduled for January 2000, but they may need to meet sooner depending on the pace of events.

At the Task Force meeting, Chair Mary King also proposed that all concerned parties write to President Clinton and urge him to direct the Navy to cooperate with the prompt completion of this seismic safety project. A copy of Chair King's letter to the President is enclosed for your use and information, in case you wish to write similar letters. If you do so, please send a copy to my attention at MTC.

If you require any further assistance, please don't hesitate to contact me at (510) 464-7810.

cc: Denis Mulligan, Caltrans
Enclosure

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September 9, 1999

The Honorable William Jefferson Clinton
President of the United States
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

Dear Mr. President:

I write on behalf of the Metropolitan Transportation Commission's Bay Bridge Design Task Force, which was convened in February 1997 to recommend a new bridge design for the seismic safety replacement of the eastern span of the San Francisco-Oakland Bay Bridge.

After an exhaustive public review process, the Task Force concluded its principal work in June 1998 by recommending a new self-anchored suspension bridge design on an alignment north of the existing span. Since that time, the California Department of Transportation (Caltrans) has led an intensive engineering effort by a consortium of leading firms to advance most of that recommended design to the 65% stage of completion as of this month. To date, Caltrans has expended $60 million on the effort.

Both the existing bridge and the new alignment pass over property on Yerba Buena Island owned by the U.S. Navy as part of the former Naval Station Treasure Island. During our 16 month-long review, we heard not one peep of protest from the Navy about the new bridge location.

It wasn't until November 1998 -- when the Mayor of San Francisco reversed his position in writing from supporting to opposing the northern alignment -- that the Navy chimed in and announced its opposition, too. Since that time, the Navy has mounted a virtual blockade against this public safety project. For almost a year now, the Navy has refused Caltrans permission to do geological testing on Yerba Buena Island -- despite the fact that another federal agency (the U.S. Coast Guard) has permitted such testing on its premises on the island. This naval blockade has moved us one year closer to the next major earthquake and has added $50 million in inflationary cost to the $1.5 billion price tag of the new bridge.

The Navy has exhibited the most irresponsible conduct by any government agency that I've seen in 23 years of public life. I was under the impression that the Navy's mission was to protect American lives, not to jeopardize the lives of the 180,000 U.S. citizens who travel across the Bay Bridge every day.

Mr. President, I implore you to intervene with the Secretary of the Navy and direct him to allow Caltrans to conduct the necessary geological drilling for the northern alignment bridge design. Governor Gray Davis recently reiterated this request in a July 28, 1999 letter to Secretary Danzig. To my knowledge, the Governor has not even received the courtesy of a response.

I would also note that the $1.5 billion cost of the new eastern span is being financed entirely with state and local funds. If the existing bridge were to collapse in a major earthquake, it is quite likely that federal emergency relief funds would be needed to pay for the significant expense associated with recovery efforts and providing alternative transportation services during construction of the replacement span.

For the past year, the Navy has wasted our time and our tax dollars. I urge you to intervene before they waste the lives of the Bay Area citizens that you and I have the honor to represent.

Sincerely,

Mary V. King
Chair
Bay Bridge Design Task Force

cc: The Honorable Gray Davis
Jose Medina, Caltrans Director

Nov. 4, 1998

To: Members, Bay Bridge Design Task Force

From: Steve Heminger, Manager
Legislation & Public Affairs

Re: Bay Bridge Design Public Comment

Attached for your information is the most recent tally of public comments we have received on the Bay Bridge design.

Public Comment on Bay Bridge Design

As of October 27, 1998*

	Phone	E-Mail	Regular Mail		Total	
Design Comments						
Design Proposal		1	5		6	
Include Light Rail	1	1	1		3	
Include Heavy Rail Capability	1	2	2		5	
Change Proposed Alignment		1	1		2	
Don't Change Alignment			1		1	
Tube Instead of Bridge		1			1	
All a Scam - It's a Jobs Program		1			1	
No Bike Lane		1	1		2	
Don't Want Old Bridge Left in Place		1			1	
Don't Rebuild			1		1	
Seismic Safety is Main Issue			2		2	
Shipping Channel (only 275'W by 135'H)		1			1	
TOTAL DESIGN COMMENTS	**2**	**10**	**14**		**26**	
Bicycle Comments						
Generally for the Path		2			2	
Safe, Comfortable, Quiet Path		46	386	**	432	**
Path All the Way Across (including AB 2038)		10	385	**	395	**
TOTAL BICYCLE COMMENTS	**0**	**58**	**771**	**	**829**	**
Transbay Terminal Comments						
Save the Terminal		1	4		5	
Transbay Design Proposal			1		1	
Move the Terminal			1		1	
TOTAL TRANSBAY TERMINAL COMMENTS	**0**	**1**	**6**		**7**	
TOTAL NUMBER OF COMMENTS**	**2**	**69**	**791**	**	**862**	**
TOTAL NUMBER OF POSTCARDS**			**385**	**	**385**	**

***Tally includes comments from June 25, 1998 through October 27, 1998.**

****More than one comment per postcard.**

REV10/27/98,4:01 PM

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Memorandum

TO: Engineering and Design Advisory Panel DATE: November 13, 2000

FR: Joseph Nicoletti, Chair

RE: Next Meeting Date

The Engineering and Design Advisory Panel (EDAP) will next meet as follows:

Thursday, December 7, 2000
1:00 – 4:00 p.m.
MetroCenter Auditorium
101 Eighth Street
Oakland

As you know, EDAP has not met for many months and much progress has been made in nearing the construction stage for the new east span of the San Francisco-Oakland Bay Bridge. The 100% design plans for the viaduct portion of the new bridge have been submitted, and design work for the self-anchored suspension and transition structures is advancing. In October, U.S. Transportation Secretary Rodney Slater announced that he will transfer the necessary property on Yerba Buena Island from the U.S. Navy to Caltrans for construction of the new bridge along the northern alignment recommended by EDAP and MTC. This action also should clear the way for completion of the federal environmental review process for the project in the next few months.

In addition, the U.S. Army Corps of Engineers has just completed an evaluation of the new east span design. The Corps report found that "Caltrans' design team is highly qualified, using state-of-the-art design methods and is moving along a path to design of bridge that meets the seismic performance criteria." However, the report raised questions about whether Caltrans should be employing both probabilistic and deterministic techniques in the development of design ground motions. Finally, the Corps report includes 10 recommendations for additional documentation, evaluation, and testing of the new east span design as it nears completion.

Accordingly, the purpose of the December 7 EDAP meeting is three-fold: (1) we will hear status reports on the east span design effort and environmental review process as work nears completion on both tasks; (2) I have appointed a sub-committee to present a white paper to EDAP on the design ground motions issue; and (3) I have asked Caltrans and the design team to report to EDAP on their plan for addressing the recommendations in the Corps report.

You will receive an agenda and supporting materials approximately one week prior to the meeting. I look forward to seeing you on December 7.

Dahms, Hein, Heminger, Brittle, Tannehill,
Curley for response

October 22, 1998

-86-H

Metropolitan Transportation Commission,
101-8TH ST.
Oakland, Ca. 94607

Here enclosed is a copy of a letter I have mailed to S.F. Chronicle in August 1998, regarding a proposal of the three Mayors of the Bay Area to add a Rail Track to the new section of the future Bay Bridge as the ultimate solution to all problems of transportation on the Bay Bridge.

Please notice how my arguments to this proposal coincide with your arguments printed in an article of today's

San Francisco Chronicle.

Would you please inform me if my proposal to transport commuters over the Bridge for free could, as I expect it to, be:

1. technically realized
2. a very potencial incentive to leave the cars
3. a great saver of costs to commuters as well as to the Bridge Authority ?

Thanks for your attention

Sincerely yours

Fred Z Harris

Mr. Fred Z. Harris
820 Kains Ave. Apt. 202
Albany, CA 94706

TDD/TTY: 510.464.7769
Fax: 510.464.7848

Memorandum

TO: Engineering and Design Advisory Panel DATE: November 13, 2000

FR: Joseph Nicoletti, Chair

RE: Next Meeting Date

The Engineering and Design Advisory Panel (EDAP) will next meet as follows:

Thursday, December 7, 2000
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101 Eighth Street
Oakland

As you know, EDAP has not met for many months and much progress has been made in nearing the construction stage for the new east span of the San Francisco-Oakland Bay Bridge. The 100% design plans for the viaduct portion of the new bridge have been submitted, and design work for the self-anchored suspension and transition structures is advancing. In October, U.S. Transportation Secretary Rodney Slater announced that he will transfer the necessary property on Yerba Buena Island from the U.S. Navy to

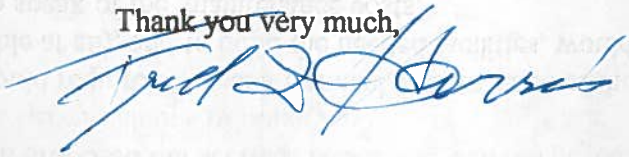
August 16,1998.

The San Francisco Chronicle
San Francisco, Ca.

Dear Editor,

As an old subscriber (some odd 40 years) to San Francisco Chronicle., may I ask you to help me to forward this letter to the proper authority and, if you agree with my arguments, to lend your support to it too.
It concerns the recent proposition by the three Bay Area mayors to add a rail service to the Bay Bridge when replacing the damaged Eastern part of the bridge.
In my opinion, it would be a monumental mistake to do that. It would be a tremendous waste of money without actually alleviating the present, or for that matter, the future traffic problems. Why?
Here are my reasons:
1. The whole concept of the Bay Bridge, including the part not to be replaced, has to be changed in order to accommodate the proposed rail service. This alone, and the purchase of the rolling stock, would cost hundreds of millions of dollars.
2. To make this system accessible would require to erect a terminal at both sides of the bridge. To acquire the land (if possible at all), and to build the needed facilities, would cost another bundle of dollars, not to speak of the ,maintenance costs.
3. Then, there is the very grave problem of squeasing the rails through the Treasure Island's tunnel, and if it could be done, the daily commuters' time during the construction would be extended beyond the commuters' endurance limits for a very, very long time.
4. The unpredictable, but unavoidable, expenses and problems regularly connected with projects of this dimension, should for sure add another bundle of dollars to the original estimate, not to mention the additional time extension to finish the project.
And here I come with the following suggestions:
Why don't we make a better and much more cost-effective use of what we have now? All we have to do is to purchase a certain number of new buses, delegating a lane in both directions only for those buses, and then add an incentive no commuter could ever refuse:**a free ride** for crossing the bridge by bus. It would, for sure, induce them in a hurry to abandon their beloved cars.
On the other hand, the loss of revenue would be more than compensated by the savings of time, money, and problems.
Another **very important point** is the possibility of electrical failure of the rail system. It is, by its nature, very rigid and thus dooms its passengers to long stalls, without any possibility to switch to some other mode of transportation, whereas the bus system , far more flexible in such situations, could find alternatives to bring their passengers, with minimum time -loss, to their destinations.
I hope you will agree, in general, with me and try to support me, while advancing my proposal to the proper governmental agency.

Thank you very much,



Date: Thu, 15 Oct 1998 13:15:50 -0700
To: info@mtc.ca.gov
From: Caroline Ayres <cayres@keypress.com>

Dear Sirs, I am trying to find out what I could do or to whom I should write to protest the moving of the Transbay Terminal. (I already wrote Mayor Brown one time.) Do you know where I should direct letters on this subject, or if there are meetings about this that would invite community input?
Thank you!

Caroline Ayres

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San Francisco, CA 94131
415/821-5721
cayre@keypress.com

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Production Editor
Key Curriculum Press
1150 65th Street
Emeryville, CA 94608
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Fax: 510/595-7040

e-mailed response on 1/19/99

Date: Mon, 18 Jan 1999 11:34:56 -0800 (PST)
To: Honorable Governor Pete Wilson <Pete.Wilson@ca.gov>,
Metropolitan Transportation Commission <info@mtc.dst.ca.us>,
CalTrans <sfobb@tremail3.dot.ca.gov>,
Bike the Bridge! Coalition <jmeggs@xinet.com>
From: steve.donnelly@segllc.com (Stephen Donnelly)
Subject: PLEASE SIGN AB 2038

Below is the result of your feedback form. It was submitted by Stephen Donnelly (steve.donnelly@segllc.com) on Monday, January 18, 1999 at 11:34:56

---

realname: Stephen Donnelly

email: steve.donnelly@segllc.com

Address: 6 Pinebrook Drive

City: Easthampton, MA 01027

RE: PLEASE SIGN AB 2038

Dear: Governor Wilson: Please sign AB 2038 (Migden) into law. This bill simply allows us to choose, locally, whether to proceed with a path from Yerba Buena Island to San Francisco on the Bay Bridg
. There is tremendous public support for such a path. The path would be used by many thousands of people per day. Bicyclists are one such group, who will benefit from the fairness of providing a
ath. Bicyclists are paying for the retrofit of the bridge and many pay for tolls as well, yet we have no way to reliably and freely cross our Bay by bicycle. Meanwhile, dramatically increasing con
estion in the Bay Area is seriously hurting our health, family lives, and businesses. And we just can't have a world-class bridge without people-access. Let's not lose this once-in-a-century oppor
unity. The view from the bridge is breathtaking and will bring many new visitors to California, particularly now that Treasure Island may become a destination. People truly need the freedom to !
!
choose this important commute and recreation option. Signed,

From: "Barney P. Popkin" <bppopkin@sirius.com>
Subject: Jobs going way off base...
Date: Fri, 5 Feb 1999 18:54:20 -0800

PLEASE READ ON IF YOU ARE INTERESTED IN
SF BAY-AREA BASE CLOSURE AND REUSE ISSUES

From the San Francisco Business Times, February 5-11, 1999, pages 1, 42 and 43:

Jobs going way off base: Military base conversion promises opportunity: East Bay waits
By Cesca Antonelli, Business Times Staff Writer

Shows photograph with caption: "Mike Farkas repaired jet engines in Alameda for $21 an hour. Now, he works in Nevada." [as a trash collector in Gardnerville, earning half that much after more than a year of being unemployed]. There's another photograph on page 43 with caption: "Machinist Dale Phillips: One of many in his trade who had trouble fining work."

Also has a second-page header: "Bases: Base conversion study pegs unemployment at 43 percent in the East Bay" with an accompanying graphic and table on page 42:

Each of these bases has an extensive reuse plan. Here's an update of the local development options and where each one stands.

Alameda Point (formerly Alameda Air Station) - 1,030 developable acres for mixed use (industrial, office, residential and shipping)

Mare Island - 1,171 developable acres for light industrial office, recreational and residential uses

Oak Knoll - 146 developable acres for golf courses and residential use

Oakland Army Base - 208 developable acres for office, job-training and retail uses

Oakland Harbor Transportation Center - Transferred to the Port of Oakland for shipping, wetlands and park usage

Point Molate - 90 developable acres for light industrial, residential and lodging uses

Base	Closed	Civilian jobs lost	Jobs created	Target through 2026	
Alameda Naval Air Station & Aviation Depot	Apr. '97	3,228	550	17,000	
Alameda Naval Public Works Center	Sept. '97	1,844	0	N/A	
Mare Island Naval Shipyard	Apr. '96	7,567	350	9,566	
Oakland Army Base	Jan. '02	1,749	0	6,860	
Oakland Hospital	Sept. '96	809	0	170	
Point Molate Naval Supply Center	Sept. '98	276[PARA]	0	N/A	

Data from Governor's Office of Planning and Research; individual base reuse plans

See also article "East Bay drives toward greater opportunities ahead" by same writer, which states "to date, about 4,700 new jobs have been created at the 12 regional bases closed, but that's a drop in the bucket of their long-term potential. BADCAT forecasts a total of 83,418 new jobs there by 2026." Page 43

Also, "Turning skills into businesses" by the same writer, page 42.

Oakland looks to fill gap with multimedia. Few education programs have success training a disadvantaged population for a booming industry. One exception may be OpNet, which teaches and places Hunters Point youths in multimedia jobs.

This year, OpNet is considering expanding or replicating its program in Oakland and aiming its efforts at former base workers and those in welfare-to-work programs.

OpNet and Oakland officials will begin meeting this month, said OpNet CEO Dan Greiger, although no final decisions to locate there have been made.

"This is just the beginning," he said. "It's time to talk to folks and see where this is going."

The program, piloted in late 1997 and opened formally in the summer of 1998, involves five weeks of basic training and a four-month paid internship with a local company. It focuses on giving kids work experience, contacts and specific skills to help them win a job.

Placement rates hit about 90 percent for internships and two-thirds for full-time employment, Greiger said. Overall, the program has trained 90 students and places between 65 and 70.

According to a recent study by the San Francisco Partnership, Bay Area multimedia jobs grew 52 percent, more than any other industry, form 1995 to 1998.

Page 42

Dreams of the Presidio: Building on perfection, by Steve Ginsberg, Business Times Staff Writer. Pages 18 and 23. Discusses private-sector developers' opportunities and visions at transforming the former Army base that has been under U.S. Army control for more than 100 years. In its evolution as the nation's first nation park governed by a trust, the Presidio has been opened to real estate developers. The single biggest potential development on the parcel is the 900,000-square foot complex at the former Letterman Hospital. The seven-member Presidio Trust, which includes developer and Gap Ind., Chairman Don Fisher, is considering four proposal form heavyweight developers such as The Shorenstein Cos. The proposals suggest four different anchor tenants: LucasFilm, Marriott Hotels, CNET, and Golden Gate University. The Business Times asked developers and academics outside

the trust competition for their thoughts on what the Presidio should look like, which are reported in the article.

In this morning's San Francisco Chronicle, there was a related article. This article indicated that Mayors Brown of San Francisco and Oakland have been heavily lobbying CalTrans. Through lobbying their legislative contacts, CALTRANS is to reconsider the selected north landing for the new YBI-Oakland Bay Bridge alignment so as to select a southern alignment which would better help develop the full economic potential of TI/YBI.

Plus, there was an article in the same Chronicle to the effect that the upcoming Marine Corp and Navy beach landing exercise has been moved to Oakland and Alameda, as it was rejected by San Francisco and the Golden Gate National Recreation Center. This move will bring $4.5 million to the Oakland and Alameda economy. The article noted that downtown San Francisco will still be the location to test out some ground-positioning systems during this upcoming exercise.

Barney Popkin

414 Buckskin Place
Vallejo, CA 94591-8432
November 8, 1998

MTC Public Information Office
101 Eighth Street
Oakland, CA 94607-4700

Dear MTC:

Although four cities voted overwhelmingly for their mayors to lobby for Bay Bridge rail service, I question if this is the best choice for reducing LOV (Low Occupancy Vehicle) crossings. These four cities already have choices of BART, bus, and ferry boat that a rail system would mostly duplicate. Meanwhile other Bay Bridge commuters living outside these four cities have no reasonable alternate.

The key incentives for reasonable people to chose an efficient commute over their LOV is not forcing them to transfer between modes(e.g. BART to bus), reliable service, and minimizing travel time from home to work. An exception to the transfer between modes is when the transfer point is a major hub and each mode performs a long distance. For example, last week I wrote to the Solano Transportation Authority with a suggestion to consider express bus service between Solano County and San Francisco via the I-80 HOV lane with a stop at the Transbay Bus Terminal and the Caltrain station.

In conclusion our strategy should never evolve into making LOV travel a living nightmare to extort people into a less than reasonable alternate. This will never work, but will prevail if we do not share a common vision for Bay Area transportation. Every transportation alternative should require the LOV reasonable person test, and ~~its~~ a feasibility study in both start-up and on-going costs.

Sincerely,

James Ahlquist

James Ahlquist

cc: State Senator Kopp

223 Donner Avenue
Livermore, CA 94550-3040

November 13, 1998

Peninsula Commute JPB (Caltrain)
Capitol Corridor JPB
Amtrak
Altamont Commuter Express (ACE) JPB

Friends:

I strongly suggest closing the two remaining grade crossings in the rail corridor between San Jose and Santa Clara. Some 80 passenger trains per day are scheduled - plus mainline freight, deadhead equipment, and yard moves - across each of these crossings, and that number could greatly increase in the future.

Lenzen Avenue, PUC E-46.3

This crossing provides access to the area inside the wye. Extending Autumn Street westerly from Cinnabar Street would provide equivalent access and allow closure of this crossing. The existing abandoned railroad track could be removed and about 750' of road built in its place.

Stockton Avenue, PUC E-45.65

This crossing could be simply barricaded, perhaps to be replaced by an overhead or underground pedestrian crossing. It lies between the Taylor Street underpass and the Hedding Street overhead. Existing roads feeding Coleman Avenue and The Alameda provide good access to the area.

The extreme skew of this crossing poses special problems. Crossing gates must be down much longer than for normal crossings to allow trucks to clear the tracks.

Closing these crossings would free a key segment of the peninsula commute line from grade crossings, allowing frequent BART-type or electrified service at minimal cost.

The immediate benefits, though, lie in enhanced safety, noise reduction, and elimination of crossing-related costs. In view of the minuscule cost to close these crossings, I hope you can all get together to close these crossings quickly.

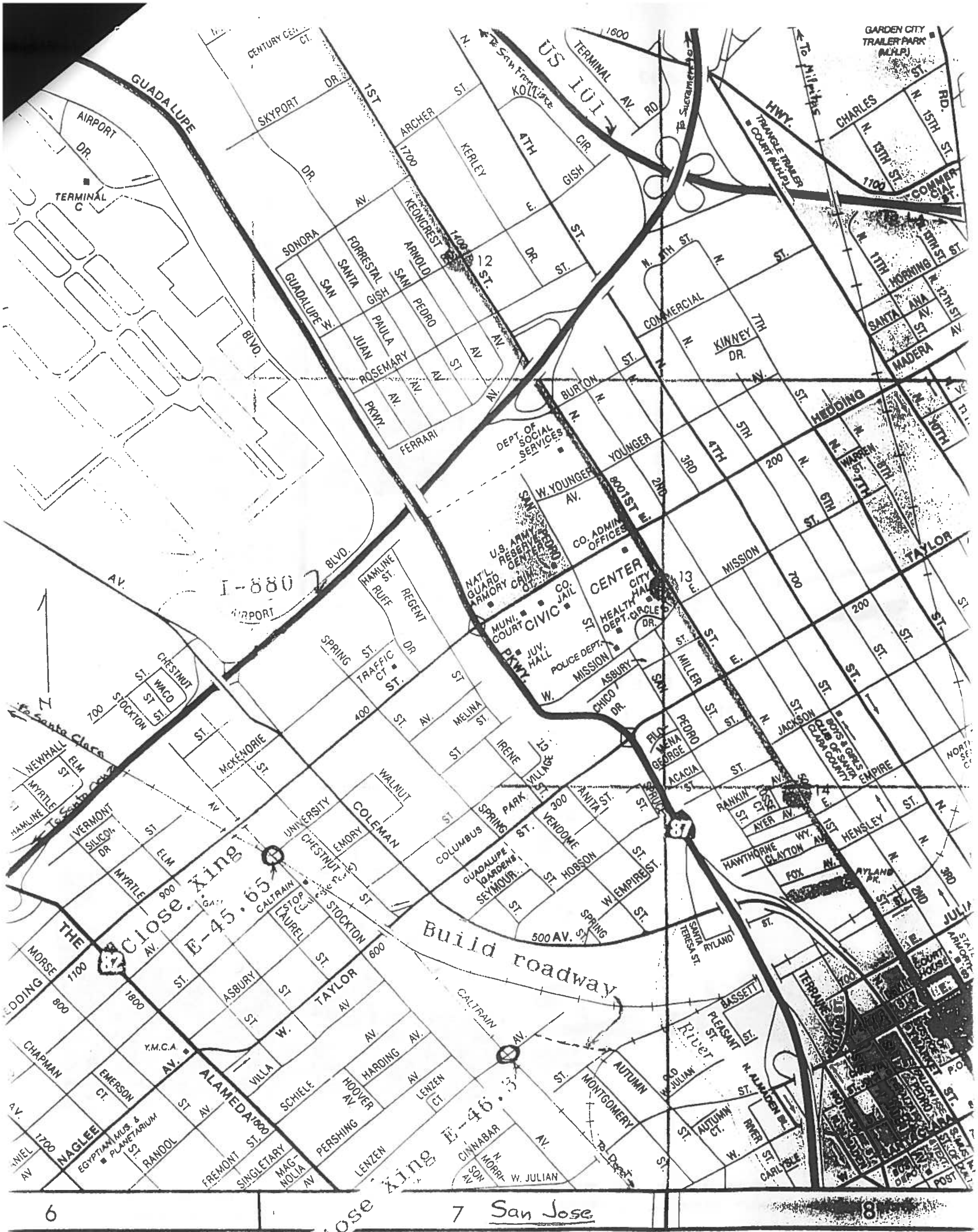
Very truly yours,

Bob Allen

Robert S. Allen
BART Director, 1974-1988
(925) 449-1387

bcc: MTC Commissioners

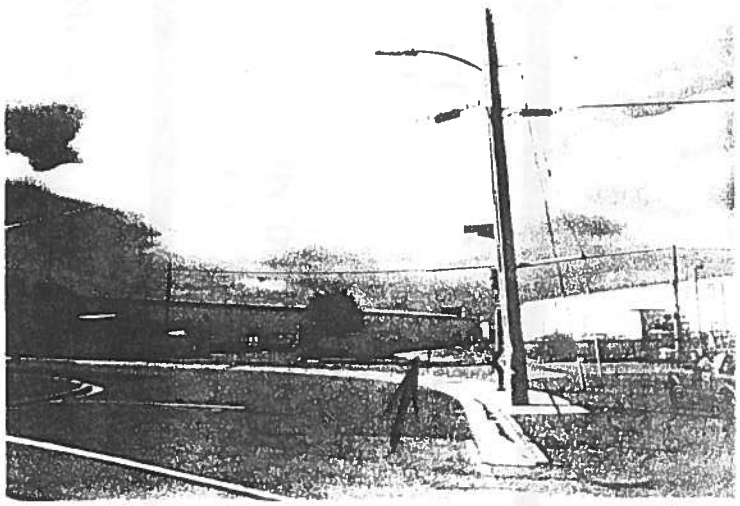
cc: Union Pacific Railroad
City of San Jose
California Public Utilities Commission
Caltrans Division of Rail (San Joaquins)
California High Speed Rail Commission



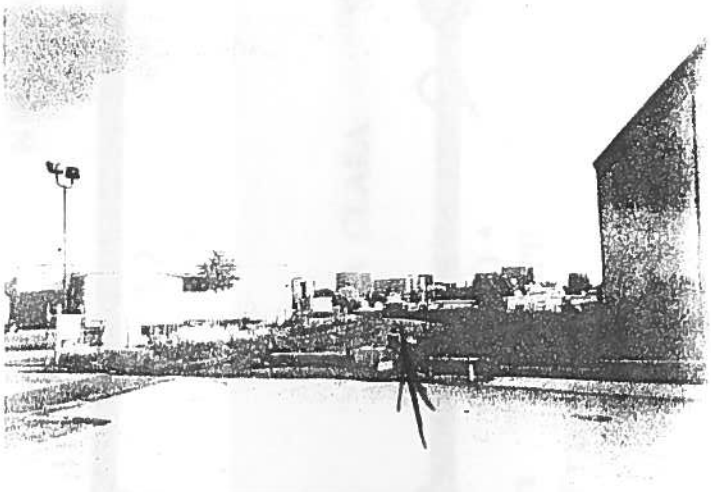
Close Xing E-45.65
Build roadway
Close Xing E-46.3
River
To Santa Clara
San Jose
6
7
8
US 101
I-880
87
82
GUADALUPE
AIRPORT DR.
TERMINAL C
SKYPORT DR.
CENTURY CENTER CT.
1ST
ARCHER ST.
KERLEY
4TH
TERMINAL AV.
GISH
CIR.
SONORA AV.
FORRESTAL
ARNOLD
KEONCREST
SANTA
SAN
GISH
PAULA
PEDRO
JUAN
ROSEMARY
PKWY.
FERRARI
COMMERCIAL
KINNEY DR.
BURTON
YOUNGER
HEDDING
MISSION
TAYLOR
DEPT. OF SOCIAL SERVICES
W. YOUNGER AV.
U.S. ARMY RESERVE CENTER
NAT'L GUARD ARMORY
CRIM. CT.
CO. JAIL
CO. ADMIN OFFICES
CIVIC CENTER
CITY HALL
HEALTH DEPT.
CIRCLE DR.
MUNI. COURT
JUV. HALL
POLICE DEPT.
HAMLINE ST.
RUFF
REGENT
SPRING ST.
TRAFFIC CT.
CHESTNUT
WACO
STOCKTON
NEWHALL
ELM
MYRTLE
VERMONT
SILICON DR
McKENORIE
UNIVERSITY
COLEMAN
WALNUT
EMORY
CHESTNUT
CALTRAIN STOP
LAUREL
ASBURY
COLUMBUS
SPRING
PARK
VENDOME
HOBSON
GUADALUPE GARDENS
SEYMOUR
W. EMPIRE ST.
IRENE
MELINA
ASBURY
CHICO DR.
MILLER
JACKSON
BOYS & GIRLS CLUB OF SANTA CLARA COUNTY
EMPIRE
ACACIA
RANKIN
AYER AV.
HENSLEY
HAWTHORNE
CLAYTON AV.
FOX AV.
RYLAND PK.
SANTA TERESA ST.
RYLAND
BASSETT
PLEASANT ST.
TERRAINE
COURT HOUSE
STATE ARMORY
JULIAN
THE ALAMEDA
MORSE
CHAPMAN
EMERSON CT.
NAGLEE AV.
EGYPTIAN MUS. & PLANETARIUM
RANDOL
FREMONT ST.
SINGLETARY
MAGNOLIA
PERSHING
LENZEN
SCHIELE
HOOVER AV
HARDING AV.
VILLA
TAYLOR
Y.M.C.A.
CALTRAIN
CINNABAR
W. JULIAN
MONTGOMERY
AUTUMN
AUTUMN CT.
N. ALMADEN BL.
RIVER ST.
CARLYSLE
GARDEN CITY TRAILER PARK (M.H.P.)
TRIANGLE TRAILER COURT (M.H.P.)
CHARLES
13TH ST.
15TH ST.
COMMERCIAL ST.
HORNING
SANTA ANA AV.
MADERA
WARREN ST.
To Milpitas
To San Francisco
To Sacramento

Xing E-45.65, Stockton Ave.
At Caltrain College Park Station

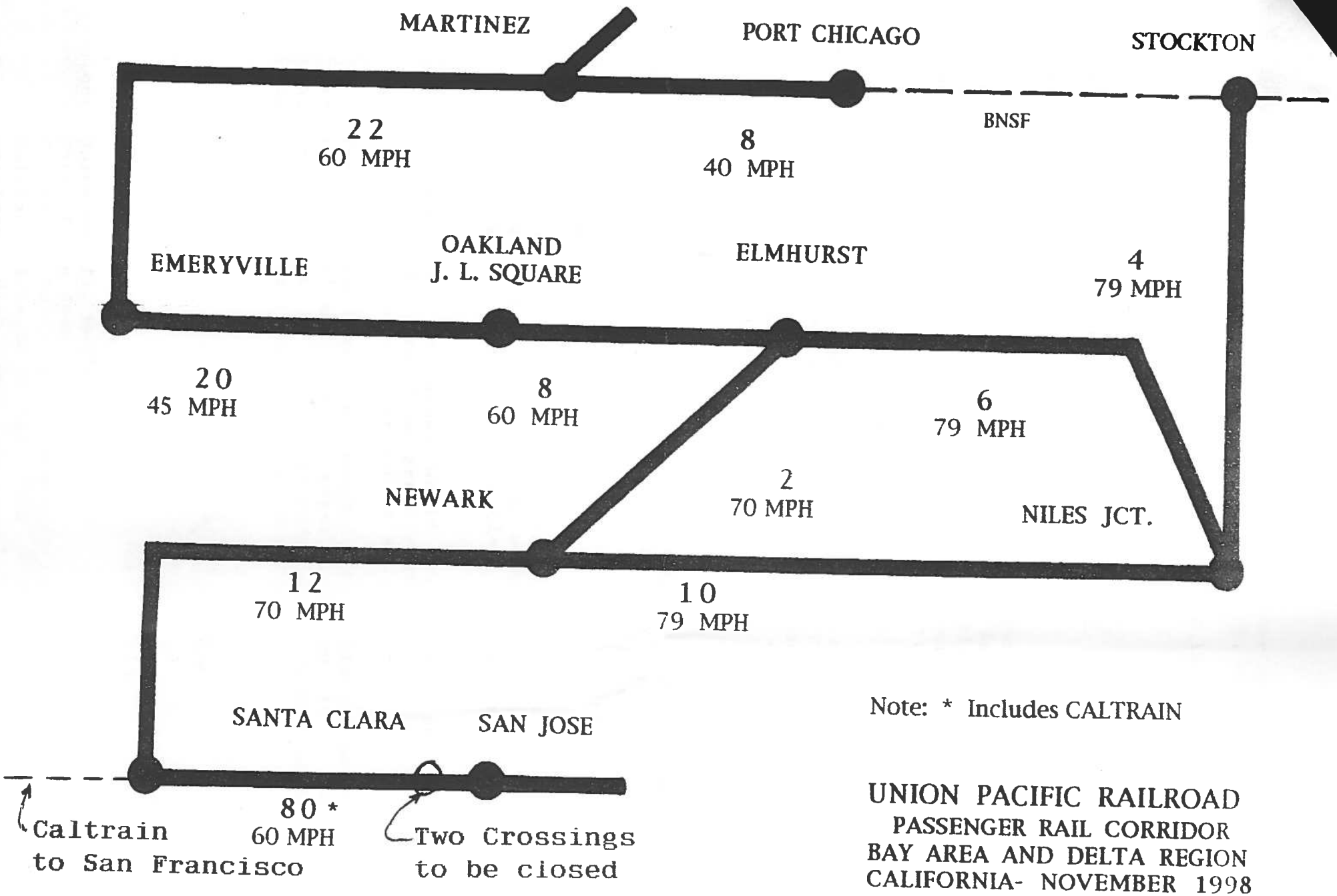
Roadway to Replace
Xing E-46.3, Lenzen Avenue



From Autumn St. at Cinnabar St.
Looking Westerly toward Lenzen Ave.



From Lenzen Avenue near Roundhouse
Looking Easterly toward Autumn St.



Note: * Includes CALTRAIN

UNION PACIFIC RAILROAD
PASSENGER RAIL CORRIDOR
BAY AREA AND DELTA REGION
CALIFORNIA- NOVEMBER 1998

PRESS SIGN-IN SHEET

Engineering and Design Advisory Panel of the Bay Bridge Design Task Force

December 7, 2000 - 1:00 p.m.

NAME	REPRESENTING
1. Lisa Vorderbeuggen	Contra Costa Times / Knight Ridder
2.	
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10.	

PUBLIC SIGN-IN SHEET
Engineering and Design Advisory Panel of the Bay Bridge Design Task Force

December 7, 2000 - 1:00 p.m.

NAME & AFFILIATION	ADDRESS	PHONE OR E-MAIL
1. Norman Rolfe	2933 Lawton St #4 SF 94104	(415) 775-9167 normrolfe@juno.com
Ken Bukowski	5800 Doyle St Emeryville	
2. Jason Meggs	P.O. Box 15071	510/273-9288
Bike the bridge! Coalition	Berkeley, CA 94712-6071	www.biketothebridge.org
3. ROBERT B. PIPER, PhD	POB 14701	510-848-4134
SIERRA CLUB, BAY CHAP.	BERKELEY CA 94712	piperrr@alum.mit.edu
4.		
5.		
6.		
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10.		